THE PROGRESSIVE FISH-CULTURIST

VOLUME 58, NUMBER 1, JANUARY 1996

1 Comparative Performance of Intensively Cultured Larval Walleye in Clear, Turbid, and Colored Water
B. T. Bristow, R. C. Summerfelt, and R. D. Clayton

11 A Semiclosed Recirculating-Water System for High-Density Culture of Rainbow Trout
J. M. Heinen, J. A. Hankins, A. L. Weber, and B. J. Watten

23 Use of the Lampricide 3-Trifluoromethyl-4-Nitrophenol (TFM) to Control Tadpoles in Warmwater Ornamental Fish Ponds
P. W. Gabbadon and F. A. Chapman

Communications

29 Effects of Tetracycline Marking, Transport Density, and Transport Time on Short-Term Survival of Walleye Fry
D. L. Peterson and R. F. Carline

32 Sperm Production and Cryopreservation in Muskellunge after Carp Pituitary Extract and Human Chorionic Gonadotropin Injection
F. Lin, A. Ciereszko, and K. Dabrowski

38 Fin Condition and Health Profiles of Albino Rainbow Trout Reared in Concrete Raceways with and without a Cobble Substrate
E. J. Wagner, M. D. Routledge, and S. S. Intelmann

43 Effects of Feeding Rate, Seawater Entry, and Exposure to Natural Biota on the Severity of Net-Pen Liver Disease among Pen-Reared Atlantic Salmon
M. L. Kent, S. C. Dawe, S. St. Hilaire, and R. J. Andersen

Technical Notes

47 Evaluation of Potential Effects of Stray Voltage Generated by Alternating Current on Hatchery-Raised Rainbow Trout
D. Brouard, C. Harvey, D. Goulet, T. Nguyen, R. Champagne, and P. Dubé

52 Alternative to Expensive, Commercially Produced Egg-Hatching Jars for Salmonids
K. N. Sloan

55 Sunshine Bass Performance in Ponds, Cages, and Indoor Tanks
A. M. Kelly and C. G. Kohler

59 Comparison of Food Conversion by Pirapatinga *Piaractus brachypomus* under Different Feeding Times
E. Baras, C. Mélard, J. C. Grignard, and X. Thoreau

62 Off-Season Spawning of Golden Shiners
M. Rowan and N. Stone

65 Hormone-Induced Multiple Spawning of Captive Nassau Grouper Broodstock
W. D. Head, W. O. Watanabe, S. C. Ellis, and E. P. Ellis

Book Reviews

70 Flowing Water Fish Culture (*S. A. Flickinger*); Broodstock Management and Egg and Larval Quality (*R. R. Stickney*)

73 **Guide for Authors**

VOLUME 58, NUMBER 2, APRIL 1996

77 Prevention of Zebra Mussel Infestation and Dispersal during Aquaculture Operations
D. L. Waller, S. W. Fisher, and H. Dabrowska

85 Production and Extended Spawning of Cultured White Bass Broodstock
T. I. J. Smith, W. E. Jenkins, and L. D. Heyward

92 History and Fluctuating Asymmetry of Utah Salmonid Broodstocks
E. J. Wagner

104 Growth, Survival, and Body Composition of Largemouth Bass Fed Various Commercial Diets and Protein Concentrations
B. J. Brecka, D. H. Wahl, and M. L. Hooe

111 Effects of Commercial Fish Meal Analogue and Menhaden Fish Meal on Growth of Red Drum Fed Isonitrogenous Diets
C. W. Meilahn, D. A. Davis, and C. R. Arnold

117 Ammonia Dynamics in Fertilized Fish Ponds Stocked with Nile Tilapia
A. A. F. Abdalla, C. D. McNabb, and T. R. Batterson

Communications

124 Ammonia Excretion Rate Indicates Dietary Protein Adequacy for Fish
Y. Cai, J. Wermerskirchen, and I. R. Adelman

128 Reducing Feed Levels during the Last Month of Rearing Enhances Emigration Rates of Hatchery-Reared Steelhead Smolts
J. M. Tipping and J. B. Byrne

131 Seawater Challenge of Coho Salmon Smolts Following Exposure to the Herbicide Endothall
D. M. Serdar and A. F. Johnson

135 Growth and Survival of Walleyes Reared in Ponds Fertilized with Organic or Inorganic Materials
B. J. Tice, R. W. Soderberg, J. M. Kirby, and M. T. Marcinko

Technical Notes

140 Spawning Frequency and Egg Production of Captive Spotted Seatrout
B. B. Wisner, K. L. Mertz, and T. R. Capo

143 Effect of a Sucrose–DMSO Extender Supplemented with Pentoxifylline or Blood Plasma on Fertilizing Ability of Cryopreserved Rainbow Trout Spermatozoa
A. Ciereszko and K. Dabrowski

Book Reviews

146 Production of Aquatic Animals—Fishes (*R. R. Stickney*); Herbivorous Fishes: Culture and Use for Weed Management (*W. L. Shelton*)

VOLUME 58, NUMBER 3, JULY 1996

149 Changes in Morphology, Physiology, Metabolism, and Fertilization Capacity of Rainbow Trout Semen Following Cryopreservation
F. Lahnsteiner, B. Berger, T. Weismann, and R. Patzner

160 Seasonal Growth and Survival of Rosy Red and Normal-Colored Fathead Minnows Receiving Different Feed Rations
G. M. Ludwig

167 Growth and Feed Utilization of Hatchery-Reared Juvenile Nassau Grouper Fed Four Practical Diets
S. Ellis, G. Viala, and W. O. Watanabe

Communications

173 Feeding Trials with Juvenile Atlantic Sturgeons Propagated from Wild Broodstock
J. W. Mohler, K. Fynn-Aikins, and R. Barrows

178 Muscle Pigmentation and Plasma Concentrations of Astaxanthin in Rainbow Trout, Chinook Salmon, and Atlantic Salmon in Response to Different Dietary Levels of Astaxanthin
B. E. March and C. MacMillan

187 Effect of Diets Supplemented with Live Food on the Foraging Behavior of Cultured Fall Chinook Salmon
D. J. Maynard, G. C. McDowell, E. P. Tezak, and T. A. Flagg

192 A Preliminary Study on the Growth Performance of Juvenile Red Grouper Reared in a Recirculating-Water System
T. Brulé, D. Aldana Aranda, M. Sánchez Crespo, and T. Colás Marrufo

203 Monitoring for Early Detection of *Aeromonas salmonicida* to Enhance Antibiotic Therapy and Control Furunculosis in Atlantic Salmon
R. C. Cipriano, L. A. Ford, J. T. Nelson, and B. N. Jenson

209 Comparative Effects of Formalin and Salt Treatments on Hatch Rate of Koi Carp Eggs
S. L. Froelich and T. Engelhardt

Technical Notes

212 Successful First Feeding of Atlantic Halibut Larvae from Photoperiod-Manipulated Broodstock
T. Næss, T Harboe, A. Mangor-Jensen, K. E. Naas, and B. Norberg

215 Use of Colorimetric Analysis to Estimate Salmonid Flesh Carotenoid Content
T. L. King

219 An Evaluation of Fluorescent Elastomer for Marking Bluegills in Experimental Studies
M. R. Dewey and S. J. Zigler

VOLUME 58, NUMBER 4, OCTOBER 1996

221 Manipulation of Spawning Cycles of Channel Catfish in Indoor Water-Recirculating Systems
A. M. Kelly and C. C. Kohler

229 Techniques for Rearing Margined Madtom Fry
J. N. Stoeckel and R. J. Neves

237 Effects of Three Fertilization Treatments on Water Quality, Zooplankton, and Striped Bass Fingerling Production in Plastic-Lined Ponds
A. Barkoh

Communications

248 Use of Cellulose Acetate Electrophoresis to Rapidly Screen Sauger Broodstock for Sauger–Walleye Hybrids
N. Billington, R. C. Brooks, and R. C. Heidinger

253 Fecundity of the Southern Atlantic Surfclam *Spisula solidissima similis*
R. L. Walker, D. H. Hurley, and M. L. Jansen

258 Effectiveness of Alarm–Distress Calls for Frightening Herons from a Fish Rearing Facility
W. F. Andelt and S. N. Hopper

263 Observed Growth, Survival, and Caudal Fin Ray Deformities of Intensively Cultured Razorback Suckers
A. M. Martinez

268 Field Trials with Fumagillin for the Control of Proliferative Kidney Disease in Coho Salmon
M. J. Higgins and M. L. Kent

273 Use of Dried Layer Waste in Diets for the Hybrid Catfish *Clarias macrocephalus* × *C. gariepinus*
W. Jantrarotai and C. Boonman

Technical Notes

277 Toxicity of Ammonia to Fingerling White Bass: Effect of Selected Environments on Uptake Dynamics
D. Ashe, J. R. Tomasso, A. G. Eversole, and T. I. J. Smith

281 New Experimental Incubation Unit for Eggs of the Perch *Perca fluviatilis*
D. Kucharczyk, R. Kujawa, and A. Mamcarz

284 Airlift Debris Removal System for Water Intake Structures
R. D. Ewing and J. E. Sheahan

286 Baffle Usage in Covered Raceways
M. E. Barnes, W. A. Sayler, and R. J. Cordes

289 Total Length Estimation of Red Drum from Head Dimensions
J. E. Serafy, C. M. Schmitz, T. R. Capo, M. E. Clarke, and J. S. Ault

Book Reviews

291 Aquacultural Development: Social Dimensions of an Emerging Industry (*R. R. Stickney*); Sustainable Fish Farming (*G. D. Treece*)

Errata

295 Ammonia Excretion Rate Indicates Dietary Protein Adequacy for Fish (Y. Cai, J. Wermerskirchen, and I. R. Adelman [volume 58:124–127])

296 **Referee Acknowledgments**

298 **Index to Volume 58**

i **Table of Contents, Volume 58**